

## ABSTRACT OF THE DISCLOSURE

A leaf color chart, calibration table and assessment chart and method for determining the nutrient status of a field crop such as rice. The leaf color chart has a palette of colored panels held within a planar support structure that have the same spectral reflectance characteristics as exhibited by a plant. In one embodiment the colors of the panels are defined by red-green ( $a^*$ ) and blue-yellow chromaticity ( $b^*$ ) and luminescence ( $L^*$ ) variables and are partitioned according to intervals in the blue-yellow scale. The calibration table is an array of percent nutrient values indexed according to the color panels of the leaf chart and the variety of plant. The assessment chart includes a graph of nutrient level values from the calibration table compared to the plant growth stage for various plant varieties and indicates the status of the crop as being deficient, adequate, critical or excessive.